

The *Microvolt*

January, 2010



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UARC
c/o Dick Keddington
1933 Woodside Drive
Holladay, UT 84124-1632

Prologue

The Utah Amateur Radio Club was organized under its present name in 1927, although its beginnings may date back as early as 1909. In 1928, it became affiliated with the American Radio Relay League (club #1602) and is a non-profit organization under the laws of Utah. It holds a club station license with the call W7SP, a memorial call for Leonard (Zim) Zimmerman, an amateur radio pioneer in the Salt Lake City area.

Meetings: The club meets each month except July and August. The meetings are held on the second Thursday of the month at 7:30 PM in the University of Utah’s Warnock Engineering Building in room 1230.

Membership: Club membership is open to anyone interested in amateur radio; a current license is not required. Dues are \$17 per year, including a *Microvolt* subscription. *The Microvolt* and membership cannot be separated. Those living at the same address as a member who has paid \$17 may obtain a membership without a *Microvolt* subscription for \$9. Send dues to the Club Secretary: Dick Keddington, KD7TDZ, 1933 Woodside Drive, Holladay, UT 84124-1632.

Contributions: Monetary contributions are gladly accepted. Send directly to the Club Treasurer: Chuck Johnson, 1612 W. 4915 S. Taylorsville, UT 84123-4244. For in kind contributions, please contact any board member to make appropriate arrangements.

Repeaters: UARC maintains the 146.62- and 146.76- repeaters. The repeaters are administered by the UARC Repeater Committee. Comments and questions may be directed to any Committee member. The Lake Mountain repeater (146.76-) is IRLP node 3352. Instructions for IRLP use are on the club website.

Ham Hot-Line: The Utah Amateur Radio Club (UARC) has a Ham Hotline, 583-3002. Information regarding Amateur Radio can be obtained, including club, testing, meeting, and membership information. If no one answers leave your name, telephone number and a short message on the answering machine, and your call will be returned.

Publication: *The Microvolt* is the official publication of the club. Deadline for submissions to *The Microvolt* is the 24th of each month prior to publication. Submissions by email are preferred (uarc@xmission.com), but other means including diskettes and typewritten submissions can be mailed directly to: Gordon Smith, 632 University St., Salt Lake City, UT 84102-3213. All submissions are welcome but what is printed and how it is edited are the responsibility of the Editor and the UARC board. Reprints are allowed with proper credits to *The Microvolt*, UARC, and authors. Changes in mailing address should be communicated to the Club Secretary: Dick Keddington, 1933 Woodside Drive, Holladay, UT, 84124-1632.

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Historian: Ron Speirs, K7RLS	801 968-4614
Field Day Chair:	
Club Trustee: Brett Sutherland, N7KG	801 298-5399
Engineer: Randy Finch, K7SL	801 556-7565
ATV Engineer: Clint Turner, KA7OEI	801 566-4497
Autopatch Engineer: Gordon Smith, K7HFV	801 582-2438

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IRLP Information

For information on using the club's IRLP node on the 146.76 repeater, check <http://www.utaharc.org/irlp> .

For late breaking news listen to the UARC Information Net Sundays at 21:00 on 146.62 or set your browser to:
www.xmission.com/~uarc/announce.html

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The Microvolt

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Volume 53, Issue 1, January 2010

January Meeting: Review Your Favorite Equipment

Are there any features of your ham shack you are proud of, concerned about, or just plain interested to share? Are you curious about what gear other operators use, how they like it, and how they arrange their station? If so, then please come to UARC's first meeting for 2010, on Thursday, January 14th. Amateurs will describe their equipment, their opinions, and share memorable experiences with and future plans for it.

Each participant is invited to give a brief talk about his or her equipment. Any commercial or homemade ham radio gear is appropriate, whether it's two transistors connected to a coat hanger, your monster fixed station which dims the streetlights on your block when you fire it up and which would be illegal to run at more than 3% of its rated power, or anything in between. Please bring gear along if you can, or bring pictures if the real thing would be too inconvenient. (Feel free to send digital pictures by e-mail to <mailto:uarc@xmission.com>, and we can project them on the night. You can also bring them along on laptop, CD, USB-drive, etc.)

Again, meetings are now on the *second* Thursday of each month, so the coming meeting will be Thursday, January 14, at 7:30 P.M. Our meetings during the spring semester are being held in room 2230 of the Warnock Engineering Building on the University of Utah campus. Room 2230 is in the same position as 1230 where we have been meeting, but one floor up. Our traditional parking on the east side of the building is limited, so another recommended parking area is near the southeast corner of the Merrill Engineering Building lot. Go south along the east side of Merrill, then go in the north door of Warnock. See the [map](#) for information on finding the building. For a map and directions for finding the building, check the club web site at http://www.xmission.com/~uarc/ab1ip_meetmap.html

Of course, the meeting will include the “standard” meeting features:

- Availability of ARRL books from Fred, the “book lady”
- An opportunity to join UARC or renew your membership
- An opportunity to join ARRL or renew your membership
- The chance to meet face-to-face the people you talk to on the air
- The “Meeting after the meeting”: A chance to enjoy pizza or other gastronomic delights with other hams. It happens at Litza's Pizza, 716 E. 400 South.
- The “Meeting before the meeting”: A similar get-together for those who can leave work early enough to get there by 5:15 P.M. We have not yet been able to obtain information on the site for the January get-together, so check the club web site for the latest update, or contact Roy Eichelberger, W7ROY.

Latest News

Election Results

The elections for 2010 were as fiercely fought as usual: despite pleas for nominations from the floor at two successive meetings, the nominating committee's choices were declared elected by acclamation.

Our cover shows new President, Linda Reeder, N7HVF, being assisted by retiring President John Hardy, K7ALA. (Thanks to club Historian Ron Speirs, K7RLS, for the photo.)

Also new to the Board of Directors this year are the Program Chairpersons: Gene Deal, KF7BSF; and Gary Wong, AB1IP. Gary is featured elsewhere in this issue as the Member of the Month.

Fred the "Book Lady" Retires

Fred DeSmet, KI7KM, who, for decades, has looked after the club's dealership for ARRL books, has submitted his resignation. Fred's efforts over all the years are greatly appreciated. He has kept the inventory up, kept the books and the sales tax records straight, and made books available for purchase at meetings, swap meets, classes, and other appropriate events.

With Fred's retirement comes the need for a new club bookseller. The book dealership has been not only a convenience for those interested in everything from license study guides to books specializing in DX or direction-finding, but also a source of funding for expenses like Field Day supplies and upgrades to club-sponsored repeaters. We hope to find a volunteer who will make it possible to continue this service.

Some of the requirements for the book dealer position would include:

- Ability to handle money and keep accurate financial records
- Ability to attend most club meetings to make books available
- Access to storage space for book inventory
- Ability to anticipate demand and keep inventory current

We believe Fred would be happy to give pointers to any new volunteers. If anyone would like to take on this important duty, contact any of the officers.

Help Needed

As we start a new year at UARC, we are in need of some help with two traditional club activities. We need volunteers to be Field Day Chairman and Steak-Fry Chairman.

Field Day is the annual nationwide contest to test portable operating skills and is held on the fourth full weekend in June. UARC has traditionally entered from a site near Payson Lakes running at least two stations. The Chairman needs to coordinate activities and make sure all the required jobs get done.

The Steak-Fry is the annual get-together in Big Cottonwood Canyon on July 17. The chairman needs to make sure volunteers are found to obtain and bring all the necessary ingredients and tools.

If you can help with either of these positions, get in touch with one of the officers.

Member of the Month

Gary Wong, AB1IP

By Linda Reeder, N7HVF

This month we are featuring Gary Wong, AB1IP.

Some of you probably know him from his design on UARC's web site. Last summer John Hardy, K7ALA, held a contest for anyone interested in improving UARC's web site format. John offered a really nice prize. Well, Gary was the only one who entered the contest. He won a Kenwood 2-meter handheld radio. Gary is an expert in computer programming. This is what he studied in college and it led to a career.

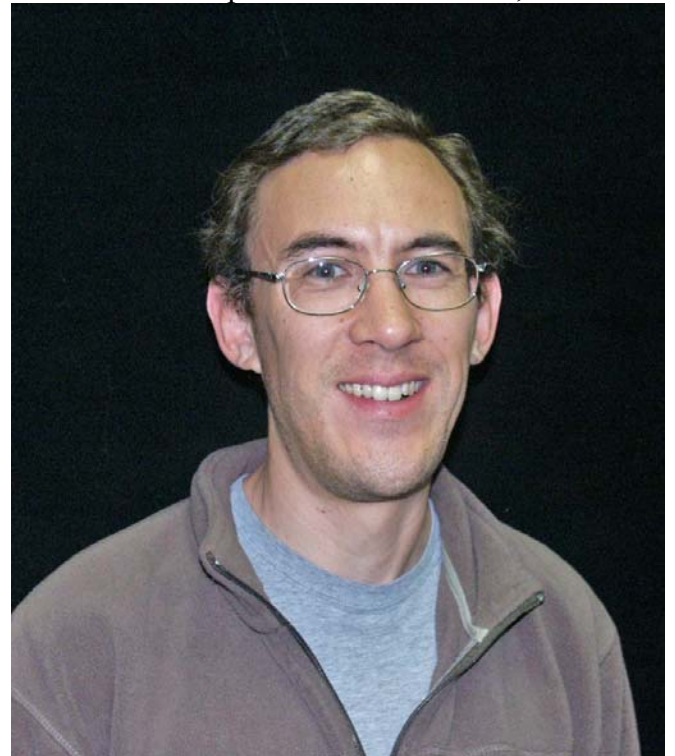
Gary grew up in New Zealand. In 1998 he came to the United States of America because he received a job offer at the University of Arizona in Tucson, Arizona, as a computer programmer. He worked there for five years. Then it was off to Randolph, New Jersey, and then Boston, Massachusetts.

It was while Gary was working at Boston University that he was introduced to amateur radio by a co-worker, Austin Wolfe, KB1CCJ. Austin had been an amateur radio operator for many years and enjoyed QRP, Morse Code, and the 20-meter band. Gary was impressed watching Austin communicating around the world using CW on 20 meters. Gary said he is working on learning the code now.

For some time Austin had been describing many of the benefits of amateur radio to Gary and telling him he really should become involved. In early 2008 Gary finally started paying attention to Austin, and went off to look up what he needed to learn to qualify for a license.

Of course Gary soon found out about the different classes of licenses and he wanted to be permitted to operate in every way that Austin could. Gary

looked Austin up in the FCC database, and found



Gary Wong, AB1IP
(photo by Ron Speirs, K7RLS)

an entry for AA1SV, Austin Wolfe, Amateur Extra Class, with an address from a town in Connecticut from where Gary knew Austin had recently moved. So Gary set about learning the material for elements 2, 3 and 4.

Later on, once Gary had passed the exams, he told Austin his new call sign and was then embarrassed to learn of his mistake looking Austin up. The AA1SV license Gary had found was actually for Austin J. Wolfe Austin's father! The Austin Gary knew was in fact Austin E. Wolfe, and held a General Class license as KB1CCJ. Gary had

accidentally qualified for a higher class by trying to match the wrong ham!

By the way, when Gary took his test he went from nothing to Extra in one test session. Isn't that impressive? Gary received his Extra Class license in March of 2008.

In November of 2008 Gary was offered a job at the University of Utah as a computer programmer, so he moved his family to Salt Lake City. Gary and his wife Lynn have a 2-year-old son named Kevin. In December of 2008, for Christmas, Lynn surprised Gary with a Kenwood TH-F6A triband handheld transceiver.

Gary, his wife Lynn, and their son Kevin attended UARC Field Day last June.

Gary loves building amateur radio equipment. He is now working on building a 20-meter rig. The thing Gary loves best about amateur radio is learning new things. Gary has also communicated with New Zealand on IRLP.

Other hobbies Gary enjoys are hiking in the mountains, music, pinball, board games, juggling and cycling.

Gary is a member of the Utah VHF Society and UARC. Gary is a new club officer. He has just been elected one of the program chairpersons for 2010.

Gary, congratulations. We know you will do a great job

Examination Schedule

1/20/10	(Wed.)	Provo	Steve Whitehead, NV7V	(801) 465-3983
1/20/10	(Wed.)	St. George	Gary Zabriskie, N7ARE	(435) 674-2678
1/26/10	(Tue.)	Salt Lake City	Eugene McWherter, N7OVT	(801) 541-1871 ¹
2/06/10	(Sat.)	Salt Lake City	Gordon Smith, K7HFV	(801) 582-2438 ¹
2/17/09	(Wed.)	Provo	Steve Whitehead, NV7V	(801) 465-3983
2/17/09	(Wed.)	St. George	Gary Zabriskie, N7ARE	(435) 674-2678
2/23/10	(Tue.)	Salt Lake City	Eugene McWherter, N7OVT	(801) 541-1871 ¹

¹ Preregistration required. Contact the indicated person.

Midvalley's Space Station QSO

On Wednesday, December 2, 2009, the Midvalley Elementary School., 217 E. 7800 South, used amateur radio to allow students to speak with astronaut Jeff Williams, KD5TVQ, aboard the International Space Station. This successful contact made Midvalley the first Utah school to complete a direct contact with the ISS.

It all started in 2007 when Carla Burningham, KC7HON, Midvalley's Principal, along with

science teacher Dave Bettinson, KE7LMH, approached UARC to find volunteers to put together a station capable of making a contact in the ARISS (Amateur Radio on the International Space Station) program. A first proposal was put together and filed, but was rejected by the ARISS group. The leaders of the ARISS program had set requirements high enough that a contact, once scheduled, had almost a guarantee of being successful. Transmitter power on two meters

needed to be between 80 and 170 Watts. Antennas had to be circularly polarized and rotatable in both azimuth and elevation. There had to be a complete backup station capable of operating without commercial power. To meet these requirements the school needed to make a revised proposal.

At the urging of several hams in UARC, Carla contacted Randy Kohlwey, WI7P. Randy had been the AMSAT coordinator for Utah and was thoroughly experienced in space communications. He also owned practically all the equipment necessary to build a station meeting the ARISS requirements. With Randy's help a new proposal was written and was accepted.

Being accepted and being scheduled were two different things. This fall, nearly a year after initial acceptance, Midvalley group got word that they were on the calendar for a space-shuttle contact during the first week of December.

Much of the equipment that Randy had relied upon in the proposal, particularly antennas and rotors, was kept at an old AT&T microwave site near Leamington. Help was needed to configure and transport the gear. Steve Olsen, AE7AC, and Leland Christensen, KC7PVF, answered the call for volunteers to help Randy, and the group spent several days dismounting and preparing the equipment.

The original schedule had been for the QSO to take place on Monday November 30, but when the schedule for the week came out, it had been moved to Wednesday, December 2. The change was probably a good thing as last minute efforts to get everything installed, configured, and debugged continued until almost the last minute. One cause was an uncooperative rotor.

Gary Wong, AB1IP, volunteered early in the week to help transmit the exchange to an IRLP node, and to cure a problem with RF getting into a

microphone mixer. Ultimately the audio was sent through the WA7GIE node on 449.425 MHz to the "Discovery Reflector" in Halifax, Nova Scotia (node 9010), a reflector used just for such events.

When the zero-hour arrived on Wednesday morning, things could hardly have gone better. Randy made a few calls and then Williams' voice filled the room loud and clear with :

"W7SP, this is NA1SS."

Acquisition of the ISS on 145.800 MHz happened at almost the earliest possible time. Students had submitted about 80 suggested questions to ask the astronaut. Of those, 20 were selected with the expectation that there might be time for about 10 of them to be answered. Twenty students lined up to ask the twenty questions and all but one were answered during the ten minutes the ISS was in view of the Salt Lake Valley. This success was owed partly to the change of schedule. The Wednesday morning pass was higher and longer than the one originally planned on Monday. Also, Randy's station maintained contact practically from horizon to horizon, and Dave had the students orchestrated with great efficiency so the questions were offered quickly, with a minimum of overhead.

When it was all over, Carla was ecstatic. She said,

"I can truly say that the feeling I received from this experience has got to be the highlight of my 29-year career! More than that I expect that this experience will begin, if not change, the direction of the thinking and actions of many young minds! Thank You again to all who have shown interest in this project and especially to all who provided hands-on help. My greatest thanks goes to Randy, and Dave, and so many, many more. Steve & June and Leland are right up there, too."



Dave Bettinson, KE7LMH, assists student asking a question of Astronaut Jeff Williams, KD5YVQ.
(Photo by Andrew Madsen, AC7CF)



The installation at the school is made. L. to R.: Steve Olsen, KE7AC; Randy Kohlwey, WI7P, and Leland Christensen, KC7PVF
(Photo by Carla Buringham, KC7HON)



The antenna: 8 elements horizontal and vertical
(Photo by Rex Estes, K7XTC)



Randy Kohlwey, WI7P, operates the station.



Steve (l) and Leland check the array in Leamington.